



A new fish ladder installed at Sandwich's Upper Shawme Pond will improve fish passage and wetland habitat.

CURRENT REGIONAL SERVICE PROVIDERS

Merrimack Valley **Planning Commission**

Salem Sound Coastwatch

North and South Rivers Watershed Association

Association to Preserve Cape Cod



Estuaries: Where Rivers Meet the Sea

A unique environment with many values, an estuary is a place where fresh water from rivers flows into the salt water of the sea. Estuaries offer protection from storm surge and flooding events, play a large role in improving water quality by removing pollutants and excess nutrients, and harbor countless species, many of which are commercially valuable. They also support a host of recreational uses such as boating, swimming, fishing, shellfishing, birding, and beach-going.

Despite these considerable values, estuaries are threatened in many ways, most of which are connected to human actions. Pressure from hundreds of years of an expanding population and associated development is taking a toll on the health of estuaries and their ability to maintain their ecological integrity.

The Massachusetts Bays Program

In 1987, an act of Congress established the National Estuary Program (NEP) under the Clean Water Act to address problems facing these valuable coastal resources. The Massachusetts Bays Program (MBP) became a part of the NEP in 1990, highlighting the region as an "estuary of national significance." Hosted by the Massachusetts Office of Coastal Zone Management. The MBP's mission is to protect and enhance the coastal health and heritage of Massachusetts and Cape Cod Bays, and its priorities are to:

- 1. Protect and enhance coastal habitat
- 2. Reduce and prevent stormwater pollution
- 3. Protect and enhance shellfish resources
- 4. Manage local land use and growth
- 5. Manage municipal wastewater
- 6. Manage marine invasive species
- 7. Monitor marine waters
- 8. Adapt for projected impacts of climate change

Stretching from the New Hampshire border to the tip of Cape Cod, the 50 coastal communities in the MBP region are home to over 1.7 million people. Because of its large size and geographic diversity, the area is divided



A volunteer collects mud samples in an effort to locate clams at a habitat restoration site in Gloucester's Mill Pond.

into five sub-regions, four of which are currently served by regional coordinators working to address coastal planning needs by responding to community needs directly at the local level.

Massachusetts Bays Program

Jay Baker, Executive Director 251 Causeway Street, Suite 800 Boston, MA 02114 Email: jason.baker@state.ma.us Phone: (617) 626-1204 Website: http://www.massbays.org







Recent Program Accomplishments

MBP staff and regional coordinators work with a wide range of partners and interests across the region. Accomplishments include:

- Wetlands Restoration Numerous salt marsh restoration projects are taking place in the region with significant support from MBP, including planning, implementation, outreach, and monitoring activities.
- Stormwater Remediation MBP works regularly with local communities to design and implement stormwater best management practices with the goal of reducing stormwater pollution to shellfish beds, bathing beaches, and other coastal resources.



Students collect data samples from the North River in Scituate to test for bacteria and other water quality characteristics.

- Financing Stormwater Management Several workshops have been held in the MBP region to educate municipalities about the logistics and feasibility of raising funds for stormwater management by setting up municipal stormwater utilities.
- Fish Passage Restoration Volunteer herring run monitoring programs have been initiated by MBP in over half a dozen communities, and fish passage restoration projects have occurred at several sites.
- Invasive Species Volunteers throughout the region are trained and supported in surveying docks, piers, and other parts of the shoreline for marine invasive species. Additionally, nuisance plants such as *Phragmites* and pepperweed are targeted for removal, and some efforts are underway to study the life history of these species in order to better understand how they grow and spread.
- No Discharge Areas Working with the Massachusetts Office of Coastal Zone Management, MBP advanced the effort to designate the majority of coastal waters in Massachusetts and Cape Cod Bays as No Discharge Areas, where the discharge of all boat waste, treated or untreated, is prohibited.
- Water Quality Monitoring Water quality is being tested and reported on at numerous outfalls and streams with the goal of remediating major sources of bacteria and other pollutants flowing into our waters and shellfish beds.
- Greenscapes MBP partners have introduced the Greenscapes program to dozens of communities, providing information to homeowners and landscapers and about ecologically-friendly garden and lawn care practices.
- Climate Change Monitoring MBP is engaged in efforts to better understand the threats posed by climate change to critical coastal resources such as salt marshes and anadromous fish runs.
- Civic Engagement A hallmark of the program, MBP involves citizens in such activities as monitoring, coastal cleanups and removing invasive plants. Additionally, MBP and partners reach out to citizens to raise awareness about watershed issues such as the importance of eelgrass beds, the problem of ocean acidification, and the projected impacts of climate change.

COMMUNITIES WITHIN THE PROGRAM AREA

UPPER NORTH SHORE REGION

- Amesbury
- Essex
- Gloucester
- Ipswich
- Newbury
- Newburyport
- Rockport
- Rowley
- Salisbury

SALEM SOUND REGION

- Beverly
- Danvers
- Manchester
- Marblehead
- Peabody
- Salem

METRO BOSTON REGION

- Swampscott
- Lynn
- Saugus
- Nahant
- RevereEverett
- Chelsea
- Winthrop
- Boston
- Milton
- Quincy
- Braintree
- Weymouth
- Hingham
- Hull

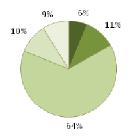
SOUTH SHORE REGION

- Cohasset
- Duxbury
- HanoverKingston
- Marshfield
- Norwell
- Pembroke
- Plymouth
- Scituate

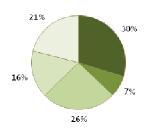
CAPE COD REGION

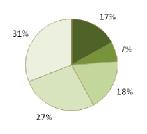
- Barnstable
- Bourne
- Brewster
- DennisEastham
- Orleans
- Provincetown
- Sandwich
- Truro
- Wellfleet
- Yarmouth

Massachusetts Bays Program Regional Characteristics



Human Population







Shoreline Length

Land Area